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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/519,471

12/29/2004

Helmut Mertens

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1609 7590 01/22/2008

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EXAMINER

GONZALEZ, MADELINE

ART UNIT

PAPER NUMBER

1797

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/519,471	Applicant(s) MERTENS ET AL.	
	Examiner Madeline Gonzalez	Art Unit 1797	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 November 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

In response to applicant's amendment dated November 5, 2007

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-21 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Branchcomb (U.S. 5,104,534) in view of Greene (U.S. 2,865,510) or in the alternative Greene in view of Branchcomb.

With respect to **claim 11**, Branchcomb discloses a filter 10, as shown in Fig. 1, having:

- a filter unit 150 and a filter unit 154 arranged concentrically about a longitudinal axis, as shown in Fig. 6;
- a support element 152 and a support element 156 (see col. 4, lines 34-37) arranged concentrically about said longitudinal axis and disposed in an alternating succession with said filter units 150, 154, as shown in Fig. 6, said support elements 152, 156, supporting and partially engaging said filter units

150, 154, respectively, in directions of fluid streams therethrough, as shown in

Fig. 6;

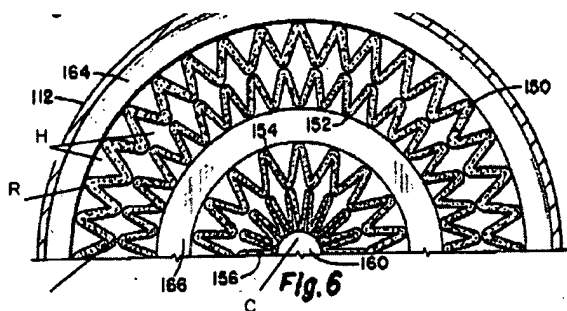


Fig. 6. Modified references: C, H and R.

- fluid receiving channels H, as shown in the figure above (formed by the pleats of elements 152, 156, as shown in Fig. 6) on a side of each of said support elements 152, 156, facing the respective filter units 150, 154, said channels H being bordered laterally by longitudinal ribs R, as shown in the figure above, on said support elements 152, 156, extending along spiral tracks (since the pleats are helical (see col. 4, lines 29-33) on said support elements 152, 156, and having two free ends emerging on opposing ends of said support elements 152, 156, said channels H extend continuously without repeated deflections of fluid streams therein and only partially encompassing the respective support elements 152, 156, forming a twisted guide for fluid flow;
- and conduits 14, 16, convey fluid to be filtered from outside said filter units 150, 154, to inner clean sides thereof, as shown in Fig. 1.

Branchcomb **lacks** a third filter unit and a third support element.

Greene discloses three filter units 18 and three support elements A, B and C, as shown in Fig. 4. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to add more concentric filter elements as taught by Greene to the filter disclosed by Branchcomb in order to increase the filtration area within the apparatus for increased volumetric flow filtration capacity.

In the alternative, it would be obvious to replace the each of the filter units A, B and C disclosed by Greene with the filter and support elements disclosed by Branchcomb in order to increase filter surface area (see col. 3, lines 53-55).

The limitation "conduits convey fluid to be filtered from outside said outer and inner filter units to inner clean sides thereof and from one of said middle filter unit to an opposite clean side thereof" in claim 11 has been given its broadest interpretation which means it can be directed to filter elements in parallel, series or combinations, thereof.

**Claim 12** adds the further limitation of wherein each of said support element is formed from a support tube. This claim is considered to be a product-by-process claim since it is drawn to a product, i.e., a support element, but it includes a process step of making the product, i.e., "formed from a support tube". "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior

product was made by a different process" (see MPEP 2113 [R-1], In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (FED. Cir. 1985)). However, if there are any structural differences, the difference would have been minor and obvious.

Furthermore, Branchcomb discloses the support element appearing to be formed by a support tube, as shown in Fig. 5.

With respect to **claim 13**, Branchcomb discloses wherein said channels H are on both inner and outer peripheral sides of said support elements 152, 156, as shown in Fig. 6.

With respect to **claim 14**, Branchcomb discloses wherein said longitudinal ribs R are formed as crosspieces on said support tubes, as shown in Fig. 6.

With respect to **claim 15**, Branchcomb discloses wherein directly adjacent ones of said longitudinal ribs R are connected in pairs on said outer peripheral sides to form support surfaces and on said inner peripheral sides to form bases of grooves of said channels H, as shown in Fig. 6.

With respect to **claim 16**, Branchcomb discloses wherein said support element 156 has passages forming a channel guide for fluid flow, as shown in Fig. 6.

With respect to **claim 17**, Branchcomb discloses wherein each said filter unit 150, 154, includes a cylindrical mat of essentially equal linear dimensions in directions parallel to said longitudinal axis, as shown in Fig. 5.

With respect to **claim 18**, Branchcomb discloses wherein at least one of said support elements 152, 156, has at least 20 of said channels H forming a common fluid guide, as shown in Fig. 6.

**Claim 19** adds the further limitation of wherein said channels are tilted at an angle between  $10^{\circ}$  and  $30^{\circ}$  relative to a line parallel to said longitudinal axis.

**Claim 20** adds the further limitation of wherein said angle is  $15^{\circ}$ .

Branchcomb discloses channels H being tilted, as shown in Fig. 1, but **lacks** the specific angle. The specific angle claimed by applicant, i.e., between  $10^{\circ}$  and  $30^{\circ}$ , and  $15^{\circ}$  is considered to be nothing more than a choice of engineering skill, choice or design that a person having ordinary skill in the art would have found obvious during routine experimentation based among other things, on desired accuracy, since the courts have held that where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than a prior art device, the claimed device was not patentably distinct from the prior art device (see *In re Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (FED. Cir. 1984), cert. Denied, 469 U.S. 830, 225 USPQ 232 (1984)).

**Claim 21** adds the further limitation of wherein said outer and middle support elements prevent fluid flow therethrough, limiting flow along surfaces thereof.

This limitation is considered to be a recitation of the intended use of the claimed invention which must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this case, the support elements 152, 156, disclosed by Branchcomb are capable of preventing fluid flow therethrough, if for example, the filter is used to separate two liquids, such as oil and water. In such as case, the support element can be made of a material permeable only to one of the liquids, preventing the fluid flow of the undesired liquid.

### ***Response to Arguments***

Applicant's arguments filed on November 5, 2007 have been fully considered but they are not persuasive.

In response to applicant's argument that the Branchcomb members 152, 156 are not support elements: The elements 152, 156, disclosed by Branchcomb have been considered as support members since they are providing support to filter elements 150 and 154, respectively (see col. 29-51).



In response to applicant's argument that the "Branchcomb patent does not have the conduits providing the flow from the outside in in its outer and inner filter units and from one side to an opposite side of its middle filter unit": Branchcomb have conduits 14, 16, providing the flow from the outside in its outer and inner filter units, as shown in Fig. 1. Branchcomb as modified by Greene has a third filter unit and the conduits 14, 16, will provide flow from one side to an opposite side of the third or middle unit, since that is the flow direction shown in Fig. 1 of Branchcomb. Furthermore, the limitation "conduits convey fluid to be filtered from outside said outer and inner filter units to inner clean sides thereof and from one of said middle filter unit to an opposite clean side thereof" in claim 11, has been given its broadest interpretation which means it can be directed to filter elements in parallel, series or combinations, thereof.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeline Gonzalez whose telephone number is 571-272-5502. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Madeline Gonzalez  
Patent Examiner  
January 11, 2008

A handwritten signature in black ink, appearing to read 'Krishnan Menon', written in a cursive style.

KRISHNAN MENON  
PRIMARY EXAMINER